

REMARKS

This is intended as a full and complete response to the Final Office Action dated June 21, 2005 ("the Final Action") having a shortened statutory period for response set to expire on September 21, 2005.

At the outset, the Examiner's reconsideration of the above-captioned application is respectfully requested in view of the following remarks in reply to the new ground of rejection raised in the Final Action. Also, as a new ground of rejection is raised for the first time in the Final Action, Applicants respectfully request entry of this Response in order to provide a more complete record for appeal.

Additionally, Applicants respectfully request that the finality of the Final Action be withdrawn. In the Final Action, it is stated that "Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action." Notably, Applicants' amendment in response to the previous Office Action specifically amended Claims 1, 28, 31, 32, 34, 36, and 38. However, in the Final Action, independent claim 22 was rejected under the newly raised ground of rejection. Claim 22 has not been amended, and thus is as original with the application as filed. Accordingly, applying a newly discovered reference to finally reject a previously unamended independent claim is improper, and thus Applicants respectfully request the finality of the Final Action be withdrawn.

In the Final Action, claims 1-8, 10-17, 19, 20, and 22-41 were rejected, and claims 9, 18, and 21 were objected to. Accordingly, claims 1-41 are presently pending.

Claims 1-8, 10-17, 19, 20, and 22-41 were rejected under 35 U.S.C. § 103(a) as being obvious over Reblewski et al. (U.S. Pat. No. 6,265,894 B1; hereinafter "Reblewski") in view of Smith (U.S. Pat. No. 6,219,785; hereinafter "Smith"). With these rejections Applicants respectfully disagree at least for the below set forth reasons.

It is now well established that the Patent Office bears the burden of establishing a *prima facie* case to maintain a rejection for obviousness. Failure to make such a

prima facie showing by the Patent Office is to result in a withdrawing of the rejection.

The MPEP states what the Patent Office considers to be a “*prima facie* case” of obviousness at Section 706.02(j). Taking *arguendo* the Patent Office criteria of a “*prima facie* case” of obviousness as the standard, it will become apparent that the instant rejection for obviousness fails to meet such criteria and, accordingly, that the rejection of Claims 1-8, 10-17, 19, 20, and 22-41 for obviousness is improper and should be withdrawn.

According to the Patent Office, the first element of a *prima facie* case for obviousness is that there must be some suggestion or motivation to modify a reference or combine the teachings of the references. This suggestion must come from either of the references or be knowledge generally available to one of ordinary skill in the art.

In the instant situation, the Final Action states that Reblewski does not “explicitly teach the inputs and the outputs are selectable via configurable [logic] while concurrently operating at least part of the multi-stage circuit.” Smith teaches operation of one programmable logic device (“PLD”) while reconfiguring another PLD, where such PLDs are independently, bi-directionally bussed to a system controller-configured PLD. However, Smith does not provide motivation to combine the teachings of Reblewski and Smith into “a programmable logic device having a multi-stage crossbar network” as purported in the Final Action.

Having two separate PLDs independently bussed to a common system controller, as in Smith, does not motivate one to modify a PLD having a multi-stage crossbar network, as in Reblewski, to operate a portion of a crossbar while reconfiguring another portion of such crossbar, as alleged in the Final Action. Rather, the motivation would be to have two PLDs each with a multi-stage crossbar network independently bussed to a common system controller.

Assuming *arguendo* that the teachings of Smith and Reblewski could reasonably be combined to suggest a single PLD, such combination based on the motivation of Smith would result in a single PLD having two crossbars, where one is reconfigurable while the other is operational. However, a single PLD having two such crossbars does not render obvious Applicants’ claim to a PLD having one crossbar

(not two) that may have a portion of such one crossbar operational while another portion of such one crossbar is reconfigured.

Furthermore, the Final Action's reliance on Smith for "motivation" for the subject matter of this Application disregards the stated objective of Smith. Smith explicitly states that "...there is a need for an improved reconfigurable computing system architecture utilizing user configurable PLDs offering dynamic independent partial reconfiguration, advantageous logic to memory ratio, and ease of design." See Smith, column 3, lines 10-14. Thus, Smith explicitly has an objective of a system architecture having multiple PLDs to provide at least in part independent partial reconfiguration, which teaches away from the motivation for the combination as stated in the Final Action being toward a single PLD.

Notably, as is well known, the suggestion to combine references for an obvious rejection cannot require substantial reconstruction or redesign of the prior references. Furthermore, as pointed out in Applicants' prior response to the prior Office Action, basic principles of Reblewski would have to be changed in order to even attempt to arrive at the claimed invention. A paragraph from Applicant's response to the First Office Action is provided here for the Examiner's convenience:

Thus, it should first be understood that Reblewski provides "overlapping coverage" in order to avoid having to reconfigure crossbar network 104. In other words, Reblewski uses more circuits to avoid having to do a complete recompilation, as crossbar network 104 is not dynamically reconfigurable. Secondly, it should be understood that Reblewski, to avoid reconfiguration of crossbar network 104 for coupling circuits thereto, provides an inter-reconfigurable circuit crossbar network stage to crossbar network 104.

Accordingly, not only would the construction of Reblewski have to be substantially reconstructed or redesigned, basic principles under which the Reblewski construction was designed to operate would have to be changed to even attempt to arrive at the claimed invention because Reblewski uses overlapping coverage to avoid reconfiguration of a crossbar network. Thus, it should be further appreciated that there is no lawfully sustainable position for finding any suggestion or motivation in either Reblewski or Smith for the proffered combination.

In short, there is no motivation or suggestion in either Reblewski or Smith to

have a single PLD having a single crossbar where one portion of the crossbar operates while another portion of the crossbar may be reconfigured as stated in the Final Action. Furthermore, Applicants' position that there is no such motivation or suggestion is reinforced by the stated objective of Smith which teaches away from the combination proffered in the Office Action.

According to the Patent Office, the second element of a *prima facie* case for obviousness is that there must be a reasonable expectation of success. As an initial matter, the Final Action does not even address the issue of a reasonable expectation of success. Given that the burden rests with the Patent Office to demonstrate obviousness, this failure to present evidence for this element of the *prima facie* case suggests that the rejection on the basis of obviousness should be withdrawn.

Applicants are placed in the position of responding to an argument regarding a reasonable expectation of success that has not even been made by the Final Action. In order to ascertain whether there would be such a reasonable expectation of success, there must be some understanding of how the primary reference of Reblewski is to be modified by the secondary reference of Smith to arrive at the claimed invention. Presently, there is no indication in the Office Action of how the teachings of Reblewski are to be reengineered in view of the teachings of Smith to arrive at the claimed invention. As mentioned above, even assuming *arguendo* that the teachings of Reblewski and Smith could reasonably be combined to suggest a PLD with two crossbars, there is no description in the Final Action of how Reblewski would be modified in view of Smith to arrive at a PLD with a crossbar having a portion that is reconfigurable while another portion is operational.

Rather, on this point, the Final Action merely has a conclusory statement that "...combining the teachings of Smith into a programmable logic device having a multi-stage crossbar network would have been obvious to one [of] ordinary skill in the art at the time the invention was made." Thus, there is no statement of how Reblewski would be modified in view of Smith to arrive at the claimed invention, and thus the Final Action fails to meet the second element of the Patent Office's *prima facie* case for obviousness.

According to the Patent Office, the third element of a *prima facie* case for

obviousness is that the cited prior art references must teach or suggest all the claim limitations. Again, even assuming *arguendo* that the teachings of Reblewski and Smith could reasonably be combined to suggest a single PLD with two crossbars, there is no description in the Final Action of how Reblewski would be modified in view of Smith to arrive at a PLD with a single crossbar having a portion that is reconfigurable while another portion is operational. As the record is currently silent as to how the combination of Reblewski and Smith would result in the claimed invention, it is respectfully submitted that the requirement for the third element of the Patent Office's *prima facie* case for obviousness is not met.

Even if the Patent Office had met its burden of establishing a *prima facie* case of obviousness in the Final Action, which Applicants respectfully believe they have not, it is well-established that the omission of an element of a prior technology, while retaining the functionality of that element, is actually an indicia of unobviousness. See MPEP, § 2144.04. Once again, even assuming *arguendo* that the teachings of Reblewski and Smith could reasonably be combined to suggest a single PLD with two crossbars, Applicants' teaching of the elimination of a crossbar while retaining the functionality of configurability, namely, using one PLD with a single crossbar, a portion of which may be configured or reconfigured while another portion is operational, is indicia that the claims are not obvious in view of the cited references.

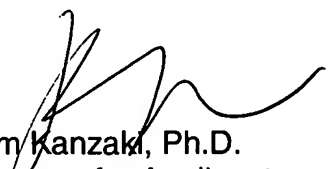
Accordingly, it is respectfully submitted that the rejection of claims 1-8, 10-17, 19, 20, and 22-41 under 35 U.S.C. § 103(a) as being obvious over Reblewski in view of Smith is improper and should be withdrawn for any of the several reasons provided above, and it is respectfully requested that the application be passed to issuance.

In the Office Action it was stated that claim 9, 18, and 21 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten to include the limitations of the base claim and any intervening claims. However, claims 9, 18, and 21 depend upon allowable base claim 1 as presently presented. Accordingly, it is respectfully submitted that claims 9, 18, and 21 are in condition for allowance and such allowance is respectfully requested.

CONCLUSION

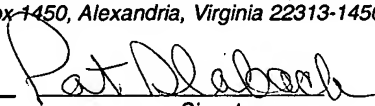
All claims are in condition for allowance and a Notice of Allowance is respectfully requested. If there are any questions, the applicants' attorney can be reached at Tel: 408-879-6149 (Pacific Standard Time).

Respectfully submitted,


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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on August 17, 2005.

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Signature